



26 February 2025

REFERRAL RESPONSE – DEVELOPMENT ENGINEERING

FILE NO: Development Applications: 240/2024/1

ADDRESS: 80 Drumalbyn Road BELLEVUE HILL 2023

PROPOSAL: Demolition of the existing three (3) residential flat buildings and associated structures on the sites and the construction of a new residential flat building comprising 26 units, two swimming pools & landscaping with the sites consolidated

FROM: W HUYNH

TO: Mr V Aleidzans

1. ISSUES

- Please refer to comments and/or conditions from Council's Traffic Engineer separately.

2. DOCUMENTATION

I refer to the following documents received for this report:

- Statement of Environment Effects, referenced 23266-Issue D, prepared by GSA Planning, dated 28/06/2024.
- Architectural Plans, referenced 23-048-Rev 4, prepared by MHDUNION, dated 27/03/2025.
- Survey Plan, referenced 1814, prepared by Pinnacle Surveyors, dated 22/12/2023.
- Stormwater Management Plan, referenced SYD2933-Rev C, prepared by ADP Consulting Engineering, dated 03/12/2024.
- Stormwater Management Strategy Report, referenced SYD2933-Rev 4, prepared by ADP Consulting Engineering, dated 04/12/2024.
- Stormwater Letter, referenced revision 1, prepared by ADP Consulting Engineering, dated 27/03/2025.
- Geotechnical Report, referenced 7520-R1, prepared by AssetGeoEnviro, dated 05/06/2024.
- Infiltration Report, referenced 7520-1-R1, prepared by AssetGeoEnviro, dated 13/08/2024.
- Extended Geotechnical Investigation Report, referenced 7520-1-R1 Rev1, prepared by AssetGeoEnviro, dated 12/12/2024.
- Shoring Concept Plans, referenced 24044, prepared by Dunning's Consulting Engineers, dated 19/03/2025.
- RFI Response Cover Letter, referenced 23266, prepared by GSA Planning, dated 19/12/2024.
- RFI Response Cover Letter, referenced 23266, prepared by GSA Planning, dated 07/04/2025.
- Geotechnical Groundwater Comments, referenced 7520-2-R1 Rev 1, prepared by AssetGeoEnviro, dated 30/08/2024.
- Easement Letters, unreferenced, various dates.
- Traffic Report, referenced 24.063r01v02, prepared by Traffix, dated 26/06/2024.



3. ASSESSMENT

Comments have been prepared on the following. **Where Approval is recommended, Conditions of Consent follow at the end of the comments.**

a. Site Drainage comments

This property is located within Council's OSD exemption area, however the property falls towards the rear and is considered a low level property. Evidence has been submitted demonstrating refusal to grant an interallotment drainage easement from the downstream owners. The submitted infiltration report demonstrates that the site is suitable for on-site absorption in terms of absorption rate and depth to rock. An extended geotechnical investigation report has been submitted demonstrating that the absorption system is suitable in terms of depth to water table. In this regard, an on-site absorption system will be installed as a method of stormwater disposal. The proposed capacity of the rainwater tank connected upstream of the absorption system is considered satisfactory. A rain garden of 18m² area has been provided as part of the stormwater treatment system. The submitted MUSIC modelling demonstrates that the proposed stormwater runoff water quality measures meet Council's water quality targets.

Council's Infrastructure and Sustainability Division is satisfied that adequate provision could be made for the disposal of stormwater from the land it is proposed to develop and complies with Chapter E2 "Stormwater and Flood Risk Management" DCP.

b. Flooding & Overland Flow comments

Council's Drainage Engineer has determined that the development proposal is generally satisfactory, subject to condition D.54 in section 4 of this referral response. Notably, conditions will be imposed to ensure the installation and maintenance of the required mechanical flood barrier(s).

c. Impacts on Council Infrastructure comments

*The applicant seeks to construct a new basement garage as part of this application. It is noted from the submitted architectural plans that the new crossing will be situated in a similar location, however the existing vehicular crossing will not be suitable, in which case the existing crossing is to be replaced with kerb and gutter and a new 5.5 metres wide crossing constructed to suit the new arrangement which will be conditioned accordingly. These infrastructure works will be subject to detailed assessment under S138 application which will be conditioned accordingly. **Please note that Council's traffic engineer may have additional comments regarding this area. Please refer to comments and/or conditions from Council's Traffic Engineer separately.***

d. Traffic comments

Please refer to comments and/or conditions from Council's Traffic Engineer separately.

e. Vehicle Access & Accommodation comments

*The proposed vehicular access and parking arrangements are considered satisfactory. **Please note that Council's traffic engineer may have additional comments regarding this area. Please refer to comments and/or conditions from Council's Traffic Engineer separately.***

f. Geotechnical, Hydrogeological and/or Structural comments



A Geotechnical Report by AssetGeoEnviro, Ref: 7520-R1, dated 5 June 2024, has been submitted in support of the application. The proposal involves excavation with a maximum depth of about 10 metres from the existing ground surface for the proposed basement.

The report identified that the subsurface conditions as:

- a) Fill comprising silty sand to a depth of 0.25m, 1m, 0.4m, 0.4m, 0.25m and 0.1m in BH1, BH2, BH3, BH4, BH5 and BH6 respectively.
- b) Depth of natural sand with various density from a depth beneath the fill to a termination depth of 2m.
- c) Sandstone bedrock was inferred beneath the natural sand via DCP test at depths ranging between 2.7m to 5m.
- d) Signs of groundwater was observed during the investigation at depths of 2.1m and 1.7m.

The report made comments and recommendations on the following:

- Shoring and support,
- Vibration Monitoring,
- Excavation method,
- Further Geotechnical input.

Council's Infrastructure & Sustainability Services Division has no objections to the proposed excavation on technical grounds. Notwithstanding this, Council's Planning Officer is also to undertake an assessment of the proposed excavation against the relevant excavation objectives and controls prescribed under the LEP and DCP.

4. RECOMMENDATION

Council's Development Engineer has determined that the proposal is satisfactory, subject to the following conditions:

A. GENERAL CONDITIONS

A.5 Approved Plans and Supporting documents

Reference	Description	Author	Date
7520-R1	Geotechnical Report	AssetGeoEnviro	05/06/2024
SYD2933	Stormwater Management Plans	ADP Consulting Engineering	
CE000-Rev B			03/12/2024
CE100-Rev A			19/06/2024
CE101-Rev A			19/06/2024
CE104-Rev B			03/12/2024
CE106-Rev C			03/12/2024
CE200-Rev C			03/12/2024
CE250-Rev B			03/12/2024
7520-1-R1	Infiltration Report	AssetGeoEnviro	13/08/2024
7520-1-R1 Rev1	Extended Geotechnical Investigation Report	AssetGeoEnviro	12/12/2024

A.8 Ancillary Aspects of Development (section 4.17(2) of the Act)

A.31 No Underpinning Works

B. BEFORE DEMOLITION WORK COMMENCES



B.4 Erosion and Sediment Controls - Installation

B.7 Public Road Assets Prior to Any Work/Demolition

B.14 Payment of Security and Fees

Property Damage Security Deposit (\$138)	\$833,920	No	T115
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B.16 Dilapidation Reports for Existing Buildings

Before any site work commences, dilapidation surveys and dilapidation reports must be conducted and prepared by a professional structural engineer for all buildings and/or structures that are located within the likely “zone of influence” of any excavation, dewatering and/or construction induced vibration as determined applicable by the structural engineer.

These properties must include (but is not limited to):

- a) No. 78 Drumalbyn Road
- b) No. 86 Drumalbyn Road
- c) No. 63 Latimer Road
- d) No. 65 Latimer Road
- e) No. 67 Latimer Road
- f) No. 71 Latimer Road

Where access is not granted to any adjoining properties to prepare the dilapidation report, the report must be based on a survey of what can be observed externally and it must be demonstrated, in writing, to the satisfaction of the Principal Certifier, that all reasonable steps were taken to obtain access.

The completed dilapidation reports must be submitted to the Principal Certifier for approval, and an approved copy of the reports must be submitted to Council with the Notice of Commencement prior to the commencement of any development work.

No less than two (2) days before any site work commences, neighbouring building owner(s) must be provided with a copy of the dilapidation report for their property(ies).

Notes:

- The dilapidation report will be made available to affected property owners on request and may be used by them in the event of a dispute relating to damage allegedly caused by the carrying out of the development.
- This condition cannot prevent neighbouring buildings being damaged by the carrying out of the development.
- Council will not be held responsible for any damage which may be caused to adjoining buildings as a consequence of the development being carried out.
- Council will not become directly involved in disputes between the developer, its contractors and the owners of neighbouring buildings.

Condition Reason: To establish and document the structural condition of adjoining properties for comparison as site work progresses and is completed and ensure neighbours and Council are provided with the dilapidation report.

B.17 Dilapidation Reports for Public Infrastructure

Before any site work commences, to clarify the existing state of public infrastructure prior to the commencement of the development (including prior to any demolition), a dilapidation



report, prepared by a chartered professional engineer, on Council's infrastructure within and near the development site must be prepared.

The dilapidation report must be submitted to Council prior to the commencement of any site work and include:

- a) closed circuit television/video inspection (in DVD format) and report of the public stormwater drainage system fronting the site,
- b) photographs showing any existing damage to the road pavement fronting the site,
- c) photographs showing any existing damage to the kerb and gutter fronting the site,
- d) photographs showing any existing damage to the footway including footpath pavement fronting the site,
- e) photographs showing any existing damage to retaining walls within the footway or road,
- f) photographs showing any existing damage to street signs, heritage name plates, and historical items,
- g) the full name and signature of the Chartered Professional Engineer.

The report is to be supplied in both paper copy and electronic format in PDF. Photographs are to be in colour, digital, and date stamped.

The dilapidation report must specify (with supporting photographic/DVD evidence) the exact location and extent of any damaged or defective public infrastructure prior to the commencement of any site work. If the required report is not submitted, Council will assume there was no damage to any infrastructure in the immediate vicinity of the site prior to the commencement of any site work under this consent.

Notes:

- If a dilapidation report is not submitted as required by this condition, and damage is occasioned to public assets, which adjoin the site, Council will deduct from security any costs associated with remedying, repairing or replacing damaged public infrastructure.
- Nothing in this condition prevents Council making any claim against security held for this purpose.

Condition Reason: To establish and document the structural condition of public land for comparison as site work progresses and is completed and ensure Council is provided with the dilapidation report.

B.18 Adjoining buildings Founded on Loose Foundation Materials

B.19 Piezometers for the Monitoring of Ground Water Levels

Before any site work commences, 2 piezometers within the excavation area and a further 2 piezometers around the perimeter of the wall must be provided. The piezometers are to be installed to monitor ground water levels (GWL) before and during all dewatering works for the construction phase.

The GWL monitoring wells and monitoring program must be maintained until the issue of the occupation certificate.

The GWL are to be regularly monitored during the course of the works as required by the work method statement for the control of GWL. Any damaged piezometers are to be replaced to allow uninterrupted monitoring.



Where there are any movements in the GWL outside a safe range set by the work method statement for the control of GWL, corrective action must be undertaken under the direction of the professional engineer (hydrological/geotechnical engineer).

Condition Reason: To ensure that piezometers are provided to monitor ground water levels.

B.21 Work (Construction) Zone – Approval and Implementation

C. ON COMPLETION OF REMEDIATION WORK

Nil

D. BEFORE ISSUE OF A CONSTRUCTION CERTIFICATE

D.13 Road and Public Domain Works

Before the issue of any construction certificate, a separate application under Section 138 of the Roads Act 1993 is to be made to, and be approved by Council, for the following infrastructure works. The infrastructure works must be carried out at the applicant's expense:

- a) The removal of all redundant vehicular crossings including layback and gutter and reinstatement into Council's standard kerb and gutter and nature strip in accordance with Council's Specification for Roadworks, Drainage and Miscellaneous Works and to the satisfaction of Council's Assets Engineers,
- b) The construction of a new 5.5 metre wide vehicular crossing including the removal of the existing vehicular crossing including layback and gutter in accordance with Council's Crossing Specification and standard driveway drawing RF2_D and to the satisfaction of Council's Assets Engineers. The new vehicular crossing must be constructed at a right angle to the street kerb in plain concrete where the centreline of the new crossing must align with the centreline of the internal driveway at the property boundary. Design longitudinal surface profiles along each side/edge for the proposed driveway, starting from the road centreline to the parking slab must be submitted for assessment,
- c) The removal and replacement of the existing 1.5 metre wide concrete footpath for the full frontage of the site in accordance with Council's Specification, Council's standard drawing RF3 and to the satisfaction of Council's Assets Engineers. A maximum cross-fall of 3% must be provided for the footpath, graded from the property boundary towards the top of kerb. A design longitudinal surface profile (scale 1:100) and cross sections (scale 1:50) at 5 metre intervals must be submitted for assessment,
- d) A bond of \$43,270 will be used as security to ensure the satisfactory completion of the infrastructure works. The security or bank guarantee must be the original unconditional bank guarantee with no expiry date,
- e) Council may use all or part of the Infrastructure Bond as well as the Property Damage Security Deposit to meet the cost of removing or completing the works if they do not meet Council's requirements,
- f) The Deposit/Bond will not be released until Council has inspected the site and is satisfied that the Works have been completed in accordance with Council approved drawings and to Council requirements,
- g) The reinstatement of all damaged footpath, kerb and gutter and road pavement to Council's Specification for Roadworks, Drainage and Miscellaneous Works and to the satisfaction of Council's Assets Engineers, and



- h) Where a grass verge exists, the balance of the area between the footpath and the kerb over the full frontage of the proposed development must be turfed. The grass verge must be constructed to contain a uniform minimum 75mm of friable growing medium and have a total cover of Couch turf.

Before the issue of any construction certificate, the principal certifier must be provided with the original receipt(s) for the payment of all of the following security bonds and fees:

Description	Amount	Indexed	Council Fee Code
SECURITY under section 4.17(6) of the <i>Environmental Planning and Assessment Act 1979</i>			
Infrastructure Works Bond - completing any public work required in connection with the consent.	\$43,270	No	T113
Infrastructure Works Bond – remedying any defects in any public work that arise within 6 months after the work is completed	Nil	No	T113
INSPECTION FEES under section 608 of the <i>Local Government Act 1993</i>			
Public Road and Footpath Infrastructure Inspection Fee	\$674	Yes	T45
TOTAL SECURITY AND FEES	\$43,944		

How must the payments be made?

Payments must be made by:

- cash deposit with Council,
- credit card payment with Council, or
- bank cheque made payable to Woollahra Municipal Council.

The payment of a security may be made by a bank guarantee where:

- the guarantee is by an Australian bank for the amount of the total outstanding contribution,
- the bank unconditionally agrees to pay the guaranteed sum to the Council on written request by Council on completion of the development or no earlier than 12 months from the provision of the guarantee whichever occurs first [NOTE: a time limited bank guarantee or a bank guarantee with an expiry date is not acceptable],
- the bank agrees to pay the guaranteed sum without reference to the Applicant or landowner or other person who provided the guarantee and without regard to any dispute, controversy, issue or other matter relating to the development consent or the carrying out of development in accordance with the development consent,
- the bank guarantee is lodged with the Council prior to any site works being undertaken, and
- the bank's obligations are discharged when payment to the Council is made in accordance with the guarantee or when Council notifies the bank in writing that the guarantee is no longer required.

Notes:

- **Road** has the same meaning as in the Roads Act 1993.
- Changes in levels may arise from the detailed design of buildings, road, footpath, driveway crossing grades and stormwater. Changes required under Roads Act 1993 approvals may



necessitate design and levels changes under this consent. This may in turn require the Applicant to seek to amend this consent.

- Works or structures over, on or under public roads or footpaths are subject to sections 138, 139 and 218 of the Roads Act 1993 and specifically:
 - a) Construction of driveways and/or new or alterations to footpath paving
 - b) Alteration and/or extension to Council drainage infrastructure
 - c) Alteration and/or addition of retaining walls
 - d) Pumping of water to Council's below ground stormwater system
 - e) Installation of soil/rock anchors under the roadway
 - f) Installation of Stormwater outlet pipes across the nature strip
- An "Application to Carry Out Works in a Public Road" form must be completed and lodged, with the application fee, at Council's Customer Services. Detailed plans and specifications of all works (including but not limited to structures, road works, driveway crossings, footpaths and stormwater drainage etc) within existing roads, must be attached, submitted to and approved by Council under section 138 of the Roads Act 1993, before the issue of any construction certificate.
- Detailed engineering plans and specifications of the works required by this condition must accompany the application form. The plans must clearly show the following:
 - a) Engineering drawings (plan, sections and elevation views) and specifications of the footpath, driveways, kerb and gutter, new gully pit showing clearly the connection point of site outlet pipe(s). The connection drainage lines must be as direct as possible and generally run perpendicular to the kerb alignment.
 - b) Engineering drawings of the new drainage line to be constructed joining the new and existing drainage pits including services.
- All driveways must include a design longitudinal surface profile for the proposed driveway for assessment. The driveway profile is to start from the road centreline and be along the worst case edge of the proposed driveway. Gradients and transitions must be in accordance with clause 2.5.3, 2.6 of AS 2890.1 – 2004, Part 1 – Off-street car parking. The driveway profile submitted to Council must be to (1:25) scale (for template checking purposes) and contain all relevant details: reduced levels, proposed grades and distances.
- The existing footpath level and grade at the street alignment of the property must be maintained unless otherwise specified by Council. Your driveway levels are to comply with AS2890.1 and Council's Standard Drawings. There may be occasions where these requirements conflict with your development and you are required to carefully check the driveway/garage slab and footpath levels for any variations.
- Any adjustments required from the garage slab and the street levels are to be carried out internally on private property.
- Drainage design works must comply with the Woollahra DCP 2015 Chapter E2 – Stormwater and Flood Risk Management.
- Temporary ground anchors may be permitted, in accordance with Council's "Rock Anchor Policy".
- Services: Prior to any excavation works, the location and depth of all public utility services (telephone, cable TV, electricity, gas, water, sewer, drainage, etc.) must be ascertained. The Applicant must be responsible for all public utility adjustment/relocation works, necessitated by the development work and as required by the various public utility authorities and/or their agents.
- All public domain works must comply with the latest version of Council's "Specification for Roadworks, Drainage and Miscellaneous Works" unless expressly provided otherwise by these conditions. This specification and the application form can be downloaded from www.woollahra.nsw.gov.au.
- When an application under the Roads Act is required, then four (4) weeks is to be allowed for assessment.
- An application must be made to Council by the person who paid the security for release of the securities held under section 4.17 of the Act.
- The securities will not be released until the Occupation Certificate has been lodged with Council, Council has inspected the site and Council is satisfied that the public works have been carried out to Council's requirements. Council may use part or all of the security to complete the works to its satisfaction if the works do not meet Council's requirements.



- Council will only release the security upon being satisfied that all damage or all works, the purpose for which the security has been held have been remedied or completed to Council's satisfaction as the case may be.
- When determining whether the works within public land are satisfactory, Council will consider the ownership, construction quality, maintenance, operations, and public utility of such item/s.
- Upon completion of each section of road, drainage and landscape work to Council's satisfaction, 90% of the bond monies held by Council for these works will be released upon application. 10% may be retained by Council for a further 6 month period and may be used by Council to repair or rectify any defects or temporary works during the 6 month period.

Condition Reason: To ensure the design of the road, footpaths, driveway crossings and public stormwater drainage works are detailed and approved under section 138 of the Roads Act 1993 and to ensure the works are completed to Council's satisfaction.

D.21 Provision for Energy Supplies

D.25 Erosion and Sediment Control Plan – Submissions & Approval

D.36 Professional Engineering Details

D.37 Engineer Certification

D.40 Geotechnical and Hydrogeological Design, Certification and Monitoring

Before the issue of the construction certificate, the applicant must submit, for approval by the Principal Certifier, a detailed geotechnical report prepared by a Geotechnical Engineer with National Engineering Register (NER) credentials in accordance with Chapter E2 of Council's DCP and Council's document "Guidelines for Preparation of Geotechnical and Hydrogeological Reports". The report must include a Geotechnical / Hydrogeological Monitoring Program together with civil and structural engineering details for foundation retaining walls, footings, basement tanking, and subsoil drainage systems, as applicable, prepared by a professional engineer, who is suitably qualified and experienced in geotechnical and hydrogeological engineering.

These details must be certified by the professional engineer to:

- a) Provide appropriate support and retention to ensure there will be no ground settlement or movement, during excavation or after construction, sufficient to cause an adverse impact on adjoining property or public infrastructure.
- b) Provide appropriate support and retention to ensure there will be no adverse impact on surrounding property or infrastructure as a result of changes in local hydrogeology (behaviour of groundwater).
- c) Provide details of cut-off walls or similar controls prior to excavation such that any temporary changes to the groundwater level, during construction, will be kept within the historical range of natural groundwater fluctuations. Where the historical range of natural groundwater fluctuations is unknown, the design must demonstrate that changes in the level of the natural water table, due to construction, will not exceed 0.3m at any time.
- d) Provide tanking to below ground structures to prevent the entry of seepage water such that subsoil drainage/ seepage water is NOT collected and discharged to the kerb and gutter to comply with Chapter E2.2.5 and E2.2.10 of the Council's DCP.
- e) Provide a Geotechnical and Hydrogeological Monitoring Program that:
 - will detect any settlement associated with temporary and permanent works and structures,
 - will detect deflection or movement of temporary and permanent retaining structures (foundation walls, shoring bracing or the like),
 - will detect vibration in accordance with AS 2187.2 Appendix J including acceptable velocity of vibration (peak particle velocity),



- will detect groundwater changes calibrated against natural groundwater variations,
- details the location and type of monitoring systems to be utilised,
- details the pre-set acceptable limits for peak particle velocity and ground water fluctuations,
- details recommended hold points to allow for the inspection and certification of geotechnical and hydrogeological measures by the professional engineer, and details a contingency plan.

Condition Reason: To ensure that geotechnical and hydrogeological impacts are appropriately managed.

D.41 Ground Anchors

D.45 Parking Facilities

D.51 Stormwater Management Plan

Before the issue of any construction certificate, the applicant must submit, for approval by the Principal Certifier, detailed stormwater management plans prepared by a chartered professional civil engineer, which detail the following:

- a) General design in accordance with the stormwater management plans, referenced SYD2933-Rev C, prepared by ADP Consulting Engineering, dated 03/12/2024, other than amended by this and other conditions,
- b) Subsoil drainage / seepage water must NOT be discharged to the kerb and gutter to comply with Chapter E2.2.5 and E2.2.10 of the Council's DCP. Notation to this requirement must be clearly depicted on the drawings,
- c) The installation of rainwater tank (RWT) with a minimum storage volume of 168m³ to comply with Chapter E2.2.9 of the Council's DCP. Runoff from all roof areas must be collected and directed to the required RWT for non-potable uses such as toilet flushing, laundry devices and garden irrigation etc. Notation and details for the non-potable uses must be included in the drawings. Overflow from the RWT must be directed to the proposed absorption system by gravity,
- d) Surface runoff from all paved areas and the rainwater tank overflow must be directed to the proposed absorption trench system. The system must be designed to have the storage capacity for the 5% AEP storm event based on the absorption rate and where the rainwater tank is to be assumed to be full and not included as part of the absorption storage,
- e) Infiltration/absorption systems must not be located within building footprints or underneath any permanent structures such as decks or paved areas to facilitate maintenance and must be located a minimum of 3 metres from footings of buildings and property boundaries to minimise adverse impacts. The trench systems must be generally located parallel to contours,
- f) The installation of rainwater tank (RWT) to comply with BASIX certificate,
- g) The provision of stormwater treatment system including but not limited to 168m³ Rainwater Tank (RWT), 2 x OceanGuard and 1 x 690mm PSorb Stormfilter by Ocean Protect and a rain garden with minimum 18m² area to meet the water quality targets stipulated in Chapter E2.2.3 of Council's DCP. Stormwater runoff from min. 653m² roof area must be directed to the 168m³ RWT for reuse purposes to comply with the MUSIC model,
- h) Internal stormwater drainage including but not limited to gutters and downpipes, pipes and pits are to be designed for rainfall intensities up to and including the 1% AEP event



if an unimpeded overland flow path to the street drainage system is not available. Design details and calculations must be included in the stormwater management plans,

- i) Dimensions of all drainage pits and access grates must comply with AS3500.3,
- j) Compliance with the objectives and performance requirements of the BCA, and
- k) General compliance with the Council's Woollahra DCP 2015 Chapter E2 – Stormwater and Flood Risk Management.

Rainwater Tank (RWT) Requirements

The minimum storage volume for the required rainwater tank (RWT) must be 168m³.

Layout plan

A detailed drainage plan at a scale of 1:100 based on drainage calculations prepared in accordance with the Australian Government publication, Australian Rainfall and Run-off, 2019 edition or most current version thereof. It must include:

- a) All pipe layouts, dimensions, grades, lengths and material specification.
- b) Location of proposed rainwater tanks.
- c) All invert levels reduced to Australian Height Datum (AHD).
- d) Location and dimensions of all drainage pits.
- e) Point and method of connection to Councils drainage infrastructure.
- f) Overland flow paths over impervious areas.

Rainwater Reuse System details:

- a) Any potential conflict between existing and proposed trees and vegetation.
- b) Internal dimensions and volume of the proposed rainwater storage.
- c) Plans, elevations and sections showing the rainwater tanks, finished surface level and adjacent structures.
- d) Details of access and maintenance facilities.
- e) Construction and structural details of all tanks and pits and/or manufacturer's specifications for proprietary products.
- f) Details of the emergency overland flow-path (to an approved Council drainage point) in the event of a blockage to the rainwater tanks.

For Stormwater Drainage works on Council's property, separate approval under Section 138 of the Roads Act 1993 must be obtained from Council for those works before the issue of any construction certificate.

All Stormwater Drainage System work within any road or public place must comply with Woollahra Municipal Council's Specification for Roadworks, Drainage and Miscellaneous Works (2012).

Notes:

- The collection, storage and use of rainwater is to be in accordance with Standards Australia HB230 "Rainwater Tank Design and Installation Handbook".

Condition Reason: To ensure that site stormwater is disposed of in a controlled and sustainable manner.

D.53 Stormwater Infiltration Systems

D.54 Flood Protection



Before the issue of any construction certificate, the construction certificate plans and specifications required under clause 7 of the Development Certification and Fire Safety Regulation, must include a Flood Risk Management Plan on the basis of the Flood Planning Level (FPL).

Flood Warning:

- a) A permanent flood risk management plan shall be installed in a prominent area of the basement carpark,

Fencing

- a) All fences traversing the rear over land flow path shall be designed to be flow through,
- b) The development shall be protected by a waterproof front wall designed to protect the development to the flood planning level

Below Ground Car parking

- a) The driveway entry shall be protected by an automatic mechanical flood barrier with the threshold set to the flood planning level of 56.8 m AHD,
- b) Permanent brass plaques shall be mounted adjacent to all automatic mechanical flood barriers explaining their purpose and operation,
- c) Emergency self-powered lights, indicating the safe exit to a flood free area above the probable maximum flood (PMF) shall be installed in the car parking area,

Floor levels

- a) The pedestrian entry shall be protected by an automatic mechanical flood barrier with the threshold set to the flood planning level of 55.3m AHD,
- b) All habitable floor level entry points shall be a minimum of 300mm above the adjacent ground level,

Flood Proof Material

- a) Flood compatible materials shall be used for all flood exposed construction,

Electricals

- a) All flood exposed electrical wiring and equipment shall be waterproofed,

Overland Flow Paths

- a) A permanent informative sign shall be mounted adjacent to the overland flow path indicating that the area is an overland flow path and must be kept clear and unobstructed at all times,

Certification

- a) All flood protection measures shall be inspected and certified as fit for purpose after construction is complete by an engineer experienced in flood mitigation,

Flood protection is to comply with Woollahra DCP 2015, Part E General Controls for All Development, Chapter E2 –Stormwater and Flood Risk Management.

Notes:

- The revised driveway profile, gradients and transitions must be in accordance with Australian Standard 2890.1, Part 1: Off-street car parking. The driveway profile submitted to Council



must contain all relevant details: reduced levels, proposed grades and distances. Council will not allow alteration to existing reduced levels within the road or any other public place to achieve flood protection.

Condition Reason: To ensure the development incorporates flood inundation protection measures.

E. BEFORE BUILDING WORK COMMENCES

E.14 Erosion and Sediment Controls – Installation

F. DURING BUILDING WORK

F.7 Public Footpaths – Safety, Access and Maintenance

F.11 Maintenance of Environmental Controls

F.12 Compliance with Geotechnical / Hydrogeological Monitoring Program

F.13 Support of Adjoining Land and Buildings

F.14 Vibration Monitoring

F.15 Erosion and Sediment Controls – Maintenance

F.17 Disposal of Site Water during Construction

F.19 Site Cranes

F.20 Check Surveys - boundary location, building location, building height, stormwater drainage system and flood protection measures relative to Australian Height Datum

F.24 Compliance with Council's Specification for Roadworks, Drainage and Miscellaneous Works, Road Works and, Work within the Road and Footway

F.25 Replacement of Sandstone Kerb or Gutter

F.33 Shoring and Adequacy of Adjoining Property

While site work is being carried out, the person having the benefit of the development consent must, at the person's own expense:

- a) protect and support the adjoining premises from possible damage from the excavation.

For the purposes of section 4.17(11) of the Act, the following condition is prescribed in relation to a development consent for development that involves an excavation that extends below the level of the base of the footings of a building on adjoining land.

Notes:

- This condition does not apply if the person having the benefit of the development consent owns the adjoining land or the owner of the adjoining land has given consent in writing to that condition not applying.

Condition Reason: To protect and support the adjoining premises from possible damage from the excavation.

G. BEFORE ISSUE OF AN OCCUPATION CERTIFICATE



G.7 Commissioning and Certification of Systems and Works

G.9 Commissioning and Certification of Public Infrastructure Works

Before the issue of any occupation certificate, certification from a professional engineer that all public infrastructure works have been executed in compliance with this consent and with Council's Specification for Roadworks, Drainage and Miscellaneous Works (2012) must be submitted to the satisfaction of Council, and the Principal Certifier must be provided with correspondence from Council to this effect.

The certification must be supported by works-as-executed engineering plans and a survey report detailing all finished reduced levels.

Condition Reason: To ensure that any road, drainage, or miscellaneous works have been completed in accordance with Council's specifications to the satisfaction of Council.

G.29 Works within Public Land (including Council, State or Federal owned land or property)

G.30 Dilapidation Report for Public Infrastructure Works

Before the issue of an occupation certificate for the whole of the building, a follow up dilapidation report, prepared by a chartered professional engineer, on Council's infrastructure within and near the development site upon completion of the work must be submitted to Council.

The dilapidation report must include:

- a) closed circuit television/video inspection (in DVD format) and report of the public stormwater drainage system fronting the site,
- b) photographs showing any existing damage to the road pavement fronting the site,
- c) photographs showing any existing damage to the kerb and gutter fronting the site,
- d) photographs showing any existing damage to the footway including footpath pavement fronting the site,
- e) photographs showing any existing damage to retaining walls within the footway or road,
- f) photographs showing any existing damage to street signs, heritage name plates, and historical items,
- g) the full name and signature of the Chartered Professional Engineer.

The reports are to be supplied in both paper copy and electronic format in PDF. Photographs are to be in colour, digital and date stamped.

Before the issue of an occupation certificate for the whole building, written correspondence must be obtained from Council attesting to this condition being appropriately satisfied, and be provided to the Principal Certifier.

Notes:

- If the dilapidation report required by this condition is not provided and damage is occasioned to public assets adjoining the site Council will deduct from security any costs associated with remedying, repairing or replacing damaged public infrastructure. Nothing in this condition prevents Council making any claim against security held for this purpose.

Condition Reason: To ensure that any damage to public infrastructure is identified and rectified prior to the occupation of the whole building.



G.32 Positive Covenant & Works-As-Executed Certification of Stormwater Systems

Before the issue of an occupation certificate for the whole of the building, and on the completion of construction work, stormwater drainage works are to be certified by a professional engineer with works-as-executed drawings supplied to the Principal Certifier detailing:

- a) compliance with conditions of development consent relating to stormwater,
- b) the structural adequacy of the rainwater tank,
- c) that subsoil drainage / seepage water is NOT discharged to the kerb and gutter,
- d) that a rainwater tank with minimum storage volume of 168m³ has been constructed in accordance with the approved stormwater plans,
- e) that the as-built rainwater retention and reuse system has been plumbed for non-potable uses such as toilet flushing, laundry devices and garden irrigation etc,
- f) that any required stormwater treatment systems have been constructed in accordance with the approved construction stormwater plans and that the system meets the water quality targets stipulated in the Council's DCP,
- g) that infiltration/absorption systems are not located within building footprints or underneath any permanent structures such as decks or paved areas and are located a minimum of 3 metres from footings of buildings and property boundaries. The trench systems must be located generally parallel to contours,
- h) that the absorption system has been designed to have the storage capacity for the 5% AEP storm event based on the absorption rate and where the rainwater tank is to be assumed to be full and not included as part of the absorption storage,
- i) that all mechanical flood barriers have been installed in accordance with the approved flood management plans,
- j) that the works have been constructed in accordance with the approved design and will provide the retention storage volume in accordance with the submitted calculations/approved drawings,
- k) pipe invert levels and surface levels to Australian Height Datum, and
- l) contours indicating the direction in which water will flow over land should the capacity of the pit be exceeded in a storm event exceeding design limits.

A positive covenant under section 88E of the Conveyancing Act 1919 must be created on the title of the subject property, providing for the on-going maintenance of the rainwater retention and reuse system, absorption system, stormwater treatment system and mechanical flood barriers. The wording of the Instrument must be in accordance with Council's standard format and the Instrument must be registered with the NSW Land Registry Services. The person with the benefit of this consent must reimburse Council's reasonable expenses incurred in the drafting, negotiation and registration of the covenant.

Notes:

- The required wording of the Instrument can be downloaded from Council's website www.woollahra.nsw.gov.au. The PC must supply a copy of the Works As Executed plans to Council together with the occupation certificate.
- The occupation certificate for the whole of the building must not be issued until this condition has been satisfied.

Condition Reason: To ensure the certification and ongoing maintenance of the stormwater system prior to the occupation of the whole building.



H. OCCUPATION AND ONGOING USE

H.29 Ongoing Maintenance of the Rainwater Retention and Reuse System, Stormwater Treatment System, Mechanical Flood Barriers and Absorption System

During the occupation and ongoing use, in accordance with this condition and any positive covenant, the person with the benefit of this consent must:

- a) Permit stormwater to be temporarily detained/retained and reused by the System.
- b) Keep the system clean and free of silt rubbish and debris,
- c) Maintain renew and repair as reasonably required from time to time the whole or part of the system so that it functions in a safe and efficient manner.
- d) Carry out the matters referred to in paragraphs (b) and (c) at the Owners expense.
- e) Not make any alterations to the system or elements thereof without prior consent in writing of the Council and not interfere with the system or by its act or omission cause it to be interfered with so that it does not function or operate properly.
- f) Permit the Council or its authorised agents from time to time upon giving reasonable notice (but at any time and without notice in the case of an emergency) to enter and inspect the land with regard to compliance with the requirements of this covenant.
- g) Comply with the terms of any written notice issued by Council in respect to the requirements of this clause within the time stated in the notice.
- h) Where the Owner fails to comply with the Owner's obligations under this covenant, permit the Council or its agents at all times and on reasonable notice at the Owner's cost to enter the land with equipment, machinery or otherwise to carry out the works required by those obligations.

The owner:

- a) Indemnifies the Council from and against all claims, demands, suits, proceedings or actions in respect of any injury, damage, loss, cost, or liability (Claims) that may be sustained, suffered, or made against the Council arising in connection with the performance of the Owner's obligations under this covenant except if, and to the extent that, the Claim arises because of the Council's negligence or default; and
- b) releases the Council from any Claim it may have against the Council arising in connection with the performance of the Owner's obligations under this covenant except if, and to the extent that, the Claim arises because of the Council's negligence or default.

Notes:

- This condition is supplementary to the owner(s) obligations and Council's rights under any positive covenant.

Condition Reason: To ensure that owners are aware of maintenance requirements for their stormwater systems.

I. BEFORE ISSUE OF A SUBDIVISION WORKS CERTIFICATE

I.1 Electricity Substations – Dedication as Road and/or Easements for Access